

THAT WHICH IS CLAIMED IS:

1. A system for removing defects from citrus pulp comprising:
 - an advancing mechanism for advancing citrus pulp along a predetermined path of travel into an inspection zone;
 - a citrus pulp imager positioned at the inspection zone for acquiring image data of the citrus pulp;
 - a processor operatively connected to said citrus pulp imager for receiving the image data and processing the image data to determine defects within the citrus pulp; and
 - a rejection mechanism for rejecting any citrus pulp determined to be defective.
2. A system according to Claim 1, wherein said citrus pulp imager further comprises a light source for illuminating the citrus pulp at the inspection zone and a camera located at the inspection zone for acquiring images of the citrus pulp.
3. A system according to Claim 2, wherein said light source is operative for illuminating the citrus pulp at a predetermined range of wavelengths for highlighting defects to be illuminated.
4. A system according to Claim 3, wherein the predetermined range of wavelengths is such as to cause defects to fluoresce.
5. A system according to Claim 1, wherein said advancing mechanism comprises a belt conveyor,

nozzle or translucent material through which citrus pulp is advanced and can be imaged.

6. A system according to Claim 1, wherein said rejection mechanism comprises a mechanical diverter that diverts any citrus pulp determined to be defective from the path of travel.

7. A system according to Claim 1, wherein said rejection mechanism comprises at least one air nozzle for blowing air onto citrus pulp determined to be defective and diverting the defective citrus pulp
5 from the path of travel.

8. A system according to Claim 1, wherein said processor is operative for determining defects including discolored pulp, peel or portions of peel, albedo or portions of albedo, seeds, portions of seeds,
5 black specks, mold, non-citrus material such as insects, insect larvae or insect parts.

9. A method of removing defects from citrus pulp comprising the steps of:

advancing citrus pulp along a predetermined path of travel into an inspection zone;

5 imaging the citrus pulp at the inspection zone to acquire image data of the citrus pulp;

processing the image data to determine defects within the citrus pulp; and

rejecting any citrus pulp determined to be
10 defective.

10. A method according to Claim 9, wherein
the step of imaging further comprises the step of
illuminating the citrus pulp at the inspection zone and
acquiring images from a camera located at the
5 inspection zone.

11. A method according to Claim 10, and
further comprising the step of illuminating the citrus
pulp at a predetermined range of wavelengths for
highlighting defects to be imaged.

12. A method according to Claim 11, and
further comprising the step of illuminating the citrus
pulp at a predetermined range of wavelengths to cause
defects to fluoresce.

13. A method according to Claim 9, wherein
the step of advancing citrus pulp further comprises the
step of conveying citrus pulp into the inspection zone
by one of conveying along a belt conveyor, discharging
5 through a nozzle; or extruding or pumping through a
translucent material to allow imaging of the citrus
pulp therein.

14. A method according to Claim 9, wherein
the step of rejecting any citrus pulp determined to be
defective comprises the step of diverting any citrus
pulp determined to be defective from the path of travel
5 to remove any defective citrus pulp.

15. A method according to Claim 14, wherein
the step of diverting the citrus pulp from the path of
travel further comprises the step of blowing any citrus
pulp away from the path of travel.

16. A method according to Claim 14, wherein
the step of diverting the citrus pulp further comprises
the step of mechanically engaging and diverting the
citrus pulp determined to be defective away from the
5 path of travel.

17. A method according to Claim 9, wherein
the step of determining defects further comprises the
step of determining discolored pulp, peel or portions
of peel, albedo or portions of albedo, seeds, portions
5 of seeds, black specks, mold, non-citrus material such
as insects, insect larvae or insect parts.